DATA STORAGE DEVICE, DATA WRITE METHOD, AND PROGRAM

ABSTRACT OF THE DISCLOSURE

[0077]   A data storage device, data write method, and program to avoid extra power consumption and suppress a write error that may result from voltage variations. To write data onto a magnetic disk, a write circuit generates a write current that is to be supplied to a write head. The write circuit operates on a positive power supply voltage provided by a host computer, and on a negative power supply voltage generated by a programmable DC-DC converter mounted on a hard disk drive's card. The magnitude of the negative power supply voltage generated by the programmable DC-DC converter is varied in accordance with the temperature surrounding the magnetic disk. Further, the magnitude of the negative power supply voltage generated by the programmable DC-DC converter is varied in accordance with the magnitude of the positive power supply voltage supplied from the host computer.

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